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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,895	02/20/2004	Roger P. Jackson	10,187	7627

7590
John C. McMahon
PO Box 30069
Kansas City, MO 64112

01/09/2008

EXAMINER

COMSTOCK, DAVID C

ART UNIT	PAPER NUMBER
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3733

MAIL DATE	DELIVERY MODE
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01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/783,895	Applicant(s) JACKSON, ROGER P.	
	Examiner David Comstock	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05 November 2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 298 10 798 U1 (Shafer) (cited by applicant) in view of US 6,056,753 (Jackson) (applicant's prior patent).

Shafer discloses a threaded bone screw device 1 comprising an open head formed by a pair of spaced apart arms 4 and a cylindrical closure 3 (see, e.g., Figs. 1 and 2). The arms define a receiving channel for a bone fixation rod 2. Facing surfaces of the arms define guide and advancement structure 9 for rotatable mating with a guide

flange on the closure. The guide flange is continuous and helical and has a compound contour including an enlarged outer periphery with an inward facing component. It is noted that the flange (thread) is considered to have a compound contour because it is a reverse angle thread and/or lobular (i.e. Figs. 1 and 2) *and* it extends helically. Thus, as between several different points in any given region of the helically extending flange, there is a compound curvature. The leading end comprises a V-shaped set ring 15. Shafer does not disclose a closure comprising a multi-stepped bore, an installation head with a breakaway region or a set point. Jackson discloses providing a closure 1 for a similar device wherein the closure comprises a multi-stepped bore defining shoulders 41-43, an installation head 20, a breakaway region 24, and a set point 51 on the leading end (see, e.g., Figs. 3 and 5 and col. 3, lines 22-65, col. 5, lines 53-65, and col. 7, line 61 - col. 8, line 10). The multi-stepped bore facilitates the use of an easy out tool for removal of the closure. The installation head and breakaway region allow the closure to be tightened to an optimal predetermined torque and prevent overtightening. The set point penetrates into the rod to prevent relative motion and better secure the system. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the device of Shafer with a closure comprising a multi-stepped bore, an installation head with a breakaway region, and a set point, in view of Jackson, in order to allow the use of an easy out tool for removal of the closure, to allow the closure to be tightened to an optimal predetermined torque and prevent overtightening, and to allow the leading end of the closure to penetrate into the rod to prevent relative motion and better secure the system.

Response to Arguments

Applicant's arguments filed 05 November 2007 have been fully considered but they are without merit.

Applicant asserts that the device of Shafer (DE 298 10 798 U1) is not "helically wound". Helically wound just means it progresses in a spiral or helical fashion, i.e. is threaded (as opposed to "twist-lock" designs). The translation provided by Applicant teaches not only that the device has threads but that the anti-splay grub screw is screwed in.

In the exemplary embodiment shown in Figure 2, the bifurcated head 4 of the bone screw 1 likewise has a thread, which, however, has a top flank 11 and a bottom flank 10 embodied in a stepped fashion. The shoulder of the bottom flank 10 is shaped such that it forms an undercut 17. This undercut 17, particularly by means of the shoulder 18, prevents the legs 5 from being bent radially outward while the grub screw 3 is being screwed in. A positive lock is thus produced in the radial direction between the bifurcated head 4 and grub screw 3. This positive lock prevents, as previously mentioned, any slippage of the leg 5. (emphasis added)

It is quite clear that Shafer discloses a "threaded" structure (i.e., a *helically wound* flange structure.

Conclusion

This is a continued examination of this application following Applicant's Request for Continued Examination filed 05 November 2007. All claims are drawn to the same invention previously claimed. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Comstock whose telephone number is (571) 272-4710. Please leave a detailed voice message if examiner is unavailable. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

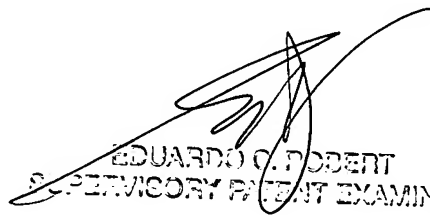
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



D. Comstock



EDUARDO C. ROBERT
SUPERVISORY PATENT EXAMINER